

REMARKS

Claims in the case are 1-6, 17-24 and 26. Claim 20 has been amended herein.

Applicants acknowledge the withdrawal of the finality of the previous Office Action of 21 August 2002 pursuant to 37 C.F.R. §1.114. Applicants also acknowledge entry of their submission (i.e., the previous amendment under 37 C.F.R. §1.116, dated 21 November 2002).

Applicants wish to point out that the listing of claims as recited on the Office Action Summary sheet and throughout the Office Action is incorrect for failing to recite Claim 19 as presently pending. Claim 19 was added in a Preliminary Amendment dated 3 May 2001, and was neither cancelled nor amended in the subsequent amendments dated 24 May 2002 and 21 November 2002. As such, it is respectfully submitted that the claims in the case are 1-6, 17-24 and 26.

Claims 1-6, 17-18, 20-24 and 26 stand rejected under 35 U.S.C. §112, second paragraph. This rejection is respectfully traversed in light of the amendments herein and the following remarks.

On pages 2 and 3 of the Office Action, Claim 1 is deemed to be indefinite with regard to being unclear as to how to prepare a homopolymer having both: (i) a mean particle diameter of 0.04 μm to 1 μm ; and (ii) containing less than or equal to 100 ppm of coarse portions having a mean particle diameter of from 200 to 500 μm . As is known to the skilled artisan, a homopolymer prepared, for example, by means of emulsion polymerization (and being optionally subsequently filtered) can have both a fine portion and a coarse portion, e.g., as in the case of a bimodal particle size distribution. In addition, solid homopolymers that are ground, for example, by means of jet-milling (and optionally subsequently filtered) can have both a fine portion and a coarse portion. In particular, filtering a feed homopolymer (e.g., through filters having mesh sizes of less than or equal to 200 μm , 150 μm or 100 μm) can result in the formation of a product homopolymer having both fine and coarse particulate portions. See page 9, lines 2-4 and 14-18 of Applicants' specification.

On page 3 of the Office Action of 19 May 2003, Claim 20 is deemed to be indefinite due to a lack of antecedent basis relative to the term "graft polymer." Applicants respectfully disagree. Claim 20 depends from Claim 17, which is drawn to a thermoplastic molding composition that comprises the polymer of Claim 1. Claim 20 is drawn to a thermoplastic molding composition that further includes a graft polymer (in addition to the polymer of Claim 1). As such, Claim 20 is not deemed to suffer from a lack of antecedent basis with regard to the term "graft polymer," as no such antecedent basis is required.

Claim 20 has been amended herein in accordance with the Examiner's suggestion, by replacing "graft polymer" with --graft copolymer--.

In light of the amendments herein and the preceding remarks, Applicants' claims are deemed to particularly point out and distinctly claim the subject matter which they regard as their invention. Reconsideration and withdrawal of this rejection is respectfully requested.

Claims 1-6, 17-18, 20-24 and 26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over United States Patent No. 4,426,499 (**Korte et al**). This rejection is respectfully traversed with regard to the following remarks.

Korte et al disclose a process for the preparation of graft polymers having an average particle diameter of from 5 to 1000 μm or 20 to 500 μm . See the abstract and column 2, lines 40-42 of Korte et al. The graft base is disclosed by Korte et al as having an average particle diameter of greater than 0.05 μm , 0.1 to 0.5 μm or 0.3 to 2 μm (column 2, lines 56-59).

Korte et al disclose that the graft polymers of their process may be a mixture of graft polymers (having an average particle diameter of from 5 to 1000 μm or 20 to 500 μm) and free (co)polymers (column 4, lines 11-16). However, Korte et al provide no disclosure or suggestion with regard to the particle size of the free (co)polymers, or whether the free (co)polymers even have a particle size. In addition, Korte et al provide no disclosure or suggestion as to the presence of free graft base particles being present in such a mixture.

For purposes of argument, even if the graft copolymer of Korte et al did contain free graft base particles (e.g., having an average particle size diameter of 0.1 to 0.5 μm), such graft base particles would be present in only a small amount, while the graft copolymer itself (e.g., having an average particle size of 20 to 500 μm) would be present in a major amount. Such a mixture would contain a very large amount of relatively coarse particles (i.e., the graft copolymer particles having an average particle size of 20 to 500 μm), and a very small amount of relatively fine particles (i.e., the hypothetical free graft base particles having an average particle size diameter of 0.1 to 0.5 μm).

The polymer of Applicants' claims contains a very small amount (i.e., less than or equal to 100 ppm) of relatively coarse particles (having a mean particle diameter of from 200 to 500 μm), and a very large amount of relatively fine particles (having a mean particle diameter of 0.04 to 1 μm). As such, even if the graft copolymer mixtures of Korte et al did contain free graft base particles, such a mixture would be, in short, the reverse of the particle size distribution of Applicants' presently claimed polymer. Accordingly, Korte et al is not deemed to disclose, teach or suggest the polymer or compositions of Applicants' claims.

In light of the preceding remarks, Applicants' claims are deemed to be unobvious and patentable over Korte et al. Reconsideration and withdrawal of this rejection is respectfully requested.

Claims 1-6, 17-18, 20-24 and 26 stand rejected under 35 U.S.C. §102(b) as being anticipated by United States Patent No. 3,919,353 (**Castelnuovo et al**). This rejection is respectfully traversed in light of the following remarks.

Castelnuovo et al disclose molding compositions that include a matrix of a linear polyester, and a dispersed polymeric phase of graft copolymer (abstract, and column 2, lines 3-14). The graft copolymer is disclosed by Castelnuovo et al as having a particle size between 0.02 and 2 μm or between 0.2 and 1 μm (column 2, lines 64-68). The graft copolymer is further disclosed by Castelnuovo et al as being present in an amount of between 3 and 30 percent by weight, based on the total weight of the molding composition (column 2, lines 32-35). Castelnuovo et al


disclose mixing a polyester in powder form (having a particle size of less than 300 μm) with graft copolymer (column 3, lines 24-25, and lines 30-36).

As the compositions of Castelnuovo et al are disclosed as containing 3 to 30 percent by weight of graft copolymer, they accordingly contain 70 to 97 percent by weight of coarse particulate polyester (e.g., having a particle size of less than 300 μm). The polymer of Applicants' claims contains less than or equal to 100 ppm (or 0.01 percent by weight) of coarse portions having a mean particle diameter of from 200 to 500 μm . The coarse particulate polyester of Castelnuovo et al's compositions is present therein in an amount that is at least 7000 times greater ($70 \text{ wt.}\% \div 0.01 \text{ wt.}\%$) than the amount of coarse portions that are present in the polymer of Applicants' claims. As such, Castelnuovo et al is not deemed to disclose Applicants' claimed polymer or compositions.

In light of the preceding remarks, Applicants' claims are deemed to be unanticipated by and patentable over Castelnuovo et al. Reconsideration and withdrawal of this rejection is respectfully requested.

In light of the amendments herein and the preceding remarks, Applicants' presently pending claims are deemed to meet all the requirements of 35 U.S.C. §112, and to define an invention that is unanticipated, unobvious and hence, patentable. Reconsideration of the rejections and allowance of all of the presently pending claims is respectfully requested.

Respectfully submitted,

By 
James R. Franks
Agent for Applicants
Reg. No. 42,552

Bayer Polymers LLC
100 Bayer Road
Pittsburgh, Pennsylvania 15205-9741
(412) 777-3808
FACSIMILE PHONE NUMBER:
(412) 777-3902
s:\kgbljrf218am